

CLAIMS

1. An imaging lens comprising a first lens, a second lens, and a third lens arranged in sequence from an object side; wherein

the first lens is a meniscus lens having a positive power, whose convex surface faces the object side;

the second lens is a meniscus lens having a negative power, whose concave surface faces the object side;

the third lens is a lens having a positive or negative power;

the first lens has a strong power compared with the second and third lenses;

at least the second and third lenses among the first, second, and third lenses are aspherical on both sides; and

the aspherical surface of the third lens has one or a plurality of inflection points.

2. The imaging lens according to claim 1, wherein the first lens has at least one lens surface that is aspherical.

3. The imaging lens according to claim 1 or 2, wherein the following condition is satisfied when a total focal distance of the imaging lens is f , and a focal distance of the first lens is f_1 :

$$0.5 < f_1/f < 1.5.$$

4. The imaging lens according to claim 1 or 2, wherein the following condition is satisfied when a total focal distance of the imaging lens is f , and a distance from an incident surface on the object side to an imaging surface of the first lens is Σd :

$$0.5 < \Sigma d/f < 1.5.$$

5. The imaging lens according to claim 1 or 2, wherein the following condition is satisfied when an Abbe number of the second lens is $vd2$:

$$50 > vd2.$$

6. The imaging lens according to claim 1 or 2, wherein a maximum exit angle of a principal ray in the imaging lens is 30 degrees or less.

7. The imaging lens according to claim 1 or 2, wherein the third lens has a peripheral portion of its lens surface on an image side, the peripheral portion being convex towards the image surface; and

the first lens has first and second lens surfaces provided with one or a plurality of inflection points.

8. The imaging lens according to claim 2, wherein the following conditions are satisfied when a total focal distance of the imaging lens is f , a focal distance of the first lens is $f1$, a distance from an incident surface on the object side to an imaging surface of the first lens is Σd , and an Abbe number of the second lens is $vd2$:

$$0.5 < f_1/f < 1.5$$

$$0.5 < \Sigma d/f < 1.5$$

$$50 > v_{d2}$$

9. The imaging lens according to claim 8, wherein a maximum exit angle of a principal ray in the imaging lens is 30 degrees or less.

10. The imaging lens according to claim 8 or 9, wherein the third lens has a peripheral portion of its lens surface on the image side, the peripheral portion being convex towards the image surface; and

the first lens has first and second lens surfaces provided with one or a plurality of inflection points.

11. An imaging lens comprising a first lens, a second lens, and a third lens arranged in sequence from an object side; wherein

the first lens is a meniscus lens having a positive power, whose convex surface faces the object side;

the second lens is a meniscus lens having a positive or negative power, whose concave surface faces the object side;

the third lens is a lens having a positive power; and

a shape of at least one of lens surfaces of the first, second, and third lenses is determined by an aspherical shape in which an inflection point does not appear within an effective lens surface region thereof.

12. The imaging lens according to claim 11, wherein the following condition is satisfied when a total focal distance of the imaging lens is f and a focal distance of the first lens is f_1 :

$$0.5 < f_1/f < 1.5.$$

13. The imaging lens according to claim 11, wherein the following condition is satisfied when a total focal distance of the imaging lens is f , and a back focus thereof is BF :

$$0.25 < BF/f < 1.0$$

14. The imaging lens according to claim 11, wherein the following condition is satisfied when a curvature of the lens surface of the third lens on the object side is R_a , and a curvature of the lens surface thereof on the image side is R_b :

$$1.0 < |R_b/R_a|.$$

15. The imaging lens according to claim 14, wherein a maximum exit angle of a principal ray is 30 degrees or less.

16. The imaging lens according to claim 12, wherein the following conditions are satisfied when a back focus of the imaging lens is BF , a curvature of the lens surface on the object side of the third lens is R_a , and a curvature of the lens surface on the image side of the third lens is R_b :

$$0.25 < BF/f < 1.0$$

$$1.0 < |R_b/R_a|.$$

17. The imaging lens according to claim 16, wherein a maximum exit angle of a principal ray is 30 degrees or less.